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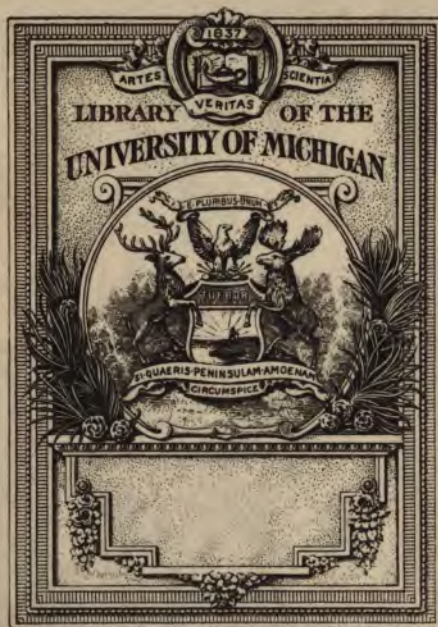
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Griscom, J.
The importance
of character +
educ. in U. S.

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Robt. H. Ives &
from the writer



A

DISCOURSE,

47636

ON THE

IMPORTANCE OF CHARACTER AND EDUCATION,

IN THE

UNITED STATES,

DELIVERED ON THE 20th OF 11th MO. (NOVEMBER,) 1822,

INTRODUCTORY TO A COURSE OF LECTURES,

ON EXPERIMENTAL PHILOSOPHY

AND CHEMISTRY.



By JOHN GRISCOM,

PROFESSOR OF MECHANICAL AND CHEMICAL PHILOSOPHY,

IN THE

NEW-YORK MECHANIC AND SCIENTIFIC INSTITUTION.



New-York:

PRINTED BY MAHLON DAY,

No. 372, Pearl-street.

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1823.



To JOHN GRISCOM,
Professor of Chemistry and Natural Philosophy.

NEW-YORK, 15th Feb. 1823.

DEAR SIR,

Having heard with pleasure and much interest, your last introductory address, we cannot but think, that it is too important a discourse, to be confined merely to those to whom it was delivered, and therefore, on behalf of ourselves and others, we beg leave to request a copy of it, for publication. Being fully satisfied, that it is your constant desire to diffuse the light of science, we are the more encouraged in the hope that our request will be granted.

We are, kind Sir, Yours,

with much respect and esteem,

ALEXANDER M. MUIR,

JONAS HUMBERT,

ISAAC LUCAS,

W. D. MALTBIE.

TO ALEXANDER M. MUIR, JONAS HUMBERT, ISAAC LUCAS, AND
W. D. MALTBIE.

I cannot well refuse to accede to your flattering request, to submit my late Introductory Address to the public eye, although, without such a call, I should not have ventured to do so, as it was hastily prepared, and I have not had time, since, to add, in the form of notes, such illustrations as would have given it greater value.

Hoping that it may, in some degree, contribute to the benefit of our infant Institution,

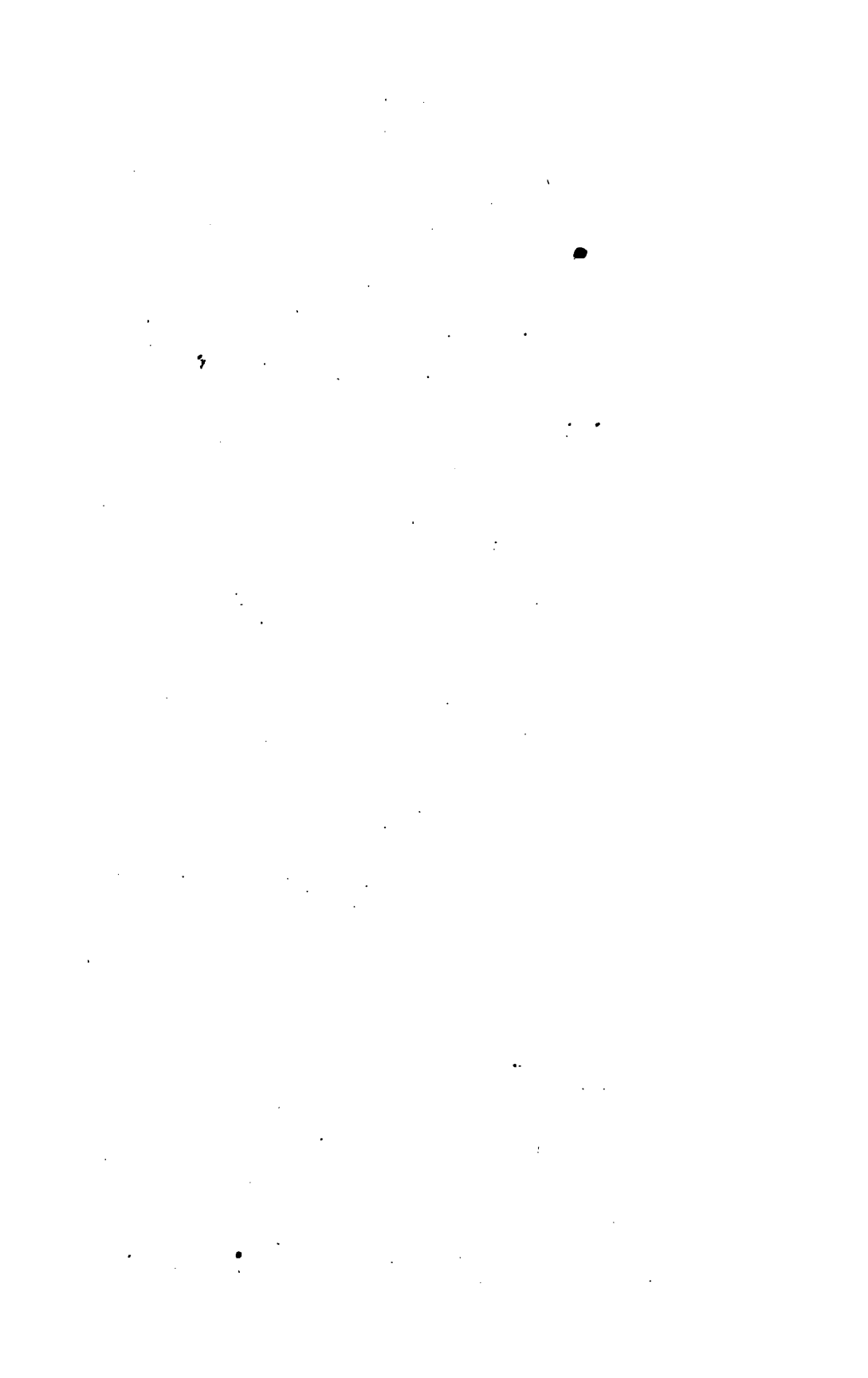
I am, with great regard,

your friend,

J. GRISCOM.

N. Y. INSTITUTION, 2d Mo. 19th, 1823.

Received 1.26.22 A.M.



DISCOURSE, &c.



FELLOW CITIZENS,

WHILE we congratulate each other on the restoration of health to our City, and cherish, as becomes us, the feelings of devout gratitude to the Supreme Disposer of events, for the renewal of a blessing, the privation of which is the cause of so much embarrassment and suffering; we may, I think, not unreasonably indulge the hope, that, by an increase of intelligent solicitude on the part of our citizens, and of wise precaution and regulation in our municipal authorities, the recurrence of such a calamity, may, under the blessing of Providence, be either entirely prevented, or arrested and subdued on its first approaches.

Health and its attendant train of enjoyments, are not to be separated from prudence and virtue. Hygeia and Minerva must unite in their labours, or neither can effectually promote the happiness of civilized communities. The first and greatest of all earthly comforts, is the possession of a sound mind in a sound body. But if it be individually true, that soundness of mind is the best safeguard of soundness of body, it is emphatically so with respect to men condensed into cities, and subject necessarily, to the same legal obligations.

The art of healing is scarcely of less importance in the mass of a city's population, than the art of prevention and preservation. Industry, the love of order, and the domestic virtues, invaluable as they are in themselves, are not alone sufficient to ensure public safety and social prosperity. Judgment, knowledge, and science, are essential ingredients in the compound of

a nation's happiness. Laws, just and salutary, and a wise administration of them, are all important ; but what security can there be for the justice of the laws and the wisdom of their administration, if there are not intelligence and discernment in the people ? if there is not a weight of public opinion, founded upon the universal diffusion of knowledge, which, like the scattered elements of light and heat in the outward creation, calls into existence and preserves in healthful operation, the various energies of intellectual and moral nature ?

It is a consolation to reflect that we live in an age in which the importance of the cultivation of the mind is more fully and feelingly acknowledged, than at any former period of the world. There is a universal stir, in almost every part of the civilized globe, in favour of education. Schools have been multiplied, beyond example, in places where they were before unknown ; and the rights of the poor and of the labouring classes, in relation to instruction, are admitted, in countries where the most lamentable ignorance prevailed, and by those who, but a few years since, were averse to the extension of learning to the lower ranks of society, from an apprehension that it would render them presumptuous, discontented, and disorderly. But how erroneous is this opinion. Whether we reason from the page of history for centuries past, or from a comparative survey of countries in which the education of the poor has been regarded with different and opposite feelings and opinions, truth and candour will enable us to draw the consolatory inference, that tranquility and industry, domestic comfort, the stability of government, and the social virtues, are all on the side of intelligence and instruction. In those very countries, where learning most predominates, where schools are best supported, and where the principles of knowledge extend through the various ramifications of society,—it is there we find the greatest share of decency and order, and the most agreeable condition of the poor as well as of the rich. The literary institutions and the parochial schools

of Scotland, Switzerland and Holland, of New England and some of the Middle States, are, in their influence upon the minds and manners of the people, an honour to the human race. If we turn to those countries, where the fierce and angry spirit of contention and revolution, where the wild flights of licentious liberty, and a servile acquiescence with a tyrant's rule, have alternately prevailed; or if we point to those governments where superstition deepens the gloom of despotism, it is precisely in those countries that ignorance has held her dominion over the minds of the multitude,—it is there that the cheering beams of knowledge have scarcely ever enlivened the fire-side of the cottager, or its animating sympathies expelled the sour and sullen feelings of discontent and oppression. But it is encouraging to believe, that in some of those countries where the tyranny of custom, and the slavery of illiberal opinion, have been the most oppressive, there is now to be perceived, the dawning of a new light. The spirit of Education has gone forth, and this powerful lever of reformation, is beginning to operate upon the moral machinery of nations, that has been long rusting under the corrosions of bigotry, ignorance and prejudice. In France, during the past year, 156 schools of mutual instruction were established through the instrumentality of the society in Paris; notwithstanding the unjust opposition, which checks the progress and tends to paralyze the generous efforts of the friends of instruction. Of twenty-four millions of Adults in that nation, it is calculated that there are but nine millions that can read and write; and that there are, of course, fifteen millions of people, in a nation susceptible of the highest improvement, that remain, and are likely to remain, without instruction. Distressing is the thought, that it is this ignorance, and its concomitant vices, which now oppose the advancement, in some of the fairest portions of the globe, of those political meliorations, which might tend, by their wide-spreading agencies, to increase the happiness of the human race. It is melancholy to us to reflect, that the march

of political and moral improvement, in the largest division of our own vast continent, is grievously impeded by the same mental darkness—the absence of that knowledge which is necessary to raise the soul to a sense of its own powers, to a just preception of its own inestimable faculties.

The effect of that general movement in favour of Education, which has distinguished the period embraced by our own memories, is already apparent. Correspondent with those noble efforts to diffuse learning throughout all ranks of the people, has been the advancement of the useful arts, the progress of manufactures, the extension of commerce, and the improvement of agriculture. The physical sciences have been cultivated with an energy and success, surpassing all former example. Chemistry, as it respects its most important discoveries and applications, has been almost created within our own recollection; and it is well worthy of remark, that the establishment and progress of Lancasterian or monitorial Schools, have been contemporaneous with the improvements of the Steam Engine, and with the wonderful applications of that new power to the wants of mankind. Institutions for the communication of scientific knowledge, have been established in almost all the capitals of Europe, and in these, and many other towns, societies have been formed, expressly for the purpose of fostering the mechanic arts. From these institutions, has sprung an emulation, that has enlivened the researches of the philosopher, invigorated the efforts of genius, and multiplied, to a vast amount, the useful and the elegant productions of the work-shop and manufactory. Every country where this noble spirit has penetrated, has felt its beneficent influence. It was not alone by working in the dock-yards of Saardam and Deptford, that Peter the Great laid the foundation of his immense power, and gave that astonishing impulse to civilization, which has marked the progress of the Russian Empire :—he also erected colleges in the principal cities ; he established a Medical School ; he laid out a Bo-

tanical Garden ; he erected an Astronomical Observatory ; and he planned the foundation of the Imperial Academy of Sciences, in the very city of which he laid the corner stone. By means like these, so industriously pursued by his successors, and so justly appreciated, and rapidly extended by the present sovereign, has that nation, in little more than a century, sprung from a state of barbarism and political insignificance, to the highest rank of splendour and power.

Another example highly instructive to mankind, may be found in China. A people, constantly pressing in fearful numbers, upon the means of subsistence ; excluding with rigid severity, all light and knowledge derivable from foreign sources ; ingenious, industrious, and persevering ; but devoid of all philosophy, devoid of all emulation, untouched by the generous rivalry of nations, without science, and, though blessed with all the materials of improvement, apparently unconscious that the human mind is susceptible of any useful attainment, beyond what is to be found in the "celestial empire." A country, favoured by nature with genial climates, and fertile soils ; a people endowed with good dispositions, and docile minds ; a government, balanced with such astonishing exactness, as to preserve nearly the numerical half of the human race within the bounds of order and law :—and yet a country, remaining, for ages beyond record, in a state of mental inactivity, of semi-barbarism, in which the noblest faculties of the soul are in a condition of irremediable and hopeless stagnation.

It would be erroneous I think to infer, from the facts in our possession, that the human mind, in any of the populous nations of Asia, is intrinsically or organically inferior to that of the nations of christendom. From the most indubitable records of ancient Braminical learning, as well as those of Persia and China, it would appear, that there has been an obvious degeneracy in the intellectual habits of those people. The same may be said of the Arabs. But can we infer from the fact of such a degene-

racy, any other than this? that, in consequence of political revolutions and the exterminating power of the sword, the institutions of learning and philosophy being demolished, libraries consumed, and the masters of arts and the teachers of wisdom, all put to silence or to flight, by the ruthless hand of ignorance and rapine, there remained no aliment for the mind to feed upon, adapted to its nourishment; no fostering hand to guide its infant steps; nothing which could enable it to surpass the limits of perpetual childhood?

Hence it is, that on the same soil, where the massive pyramids still remain, as monuments of the skill and science of ages unknown to history; on the shore where Babylon reared its turrets, and its lofty gardens in all the pomp of oriental magnificence; on the plains where Tadmor and Persepolis displayed their marbled columns and their sculptured domes, nothing is seen but the stupid Turk or the ferocious Arab, roving with incurious eye, and intent only on his sensual enjoyment. And if, on that more recent and exalted theatre, where the eloquence of Demosthenes kindled with electric energy the fires of patriotism, where the inimitable touches of Praxiteles rivaled the accuracy of nature; and where Aristotle and his pupil triumphed in their wisdom and their might;—in that country where physic was born, and where the charms of the Academy were destined to increase the happiness of worlds then unknown;—if in this land, long marked by the desolation of all that is great and good, there have been evidences of returning sensibility, and fresh breathings from the tomb of liberty and honour,—are not these to be attributed to sparks blown from beyond the Appenines, to a warmth enkindled by foreign suns, and beginning to glow with a light and heat which promised a rejuvenescence honourable to ages past, and consoling to humanity? Yes—it was a feeling excited by the new college, and the reviving literature of ancient Chios,—a country which claims the birth of Poetry;—it was the virgin light of these and other new born institutions which

awakened the people to a sense of their calamity, and drew again upon them the murderous devastations of Mahometan fury.—But is this mental light to be again utterly extinguished?—Is the demon of ignorance, superstition, and cruelty, still to hold his empire over this fair portion of the earth? No—let us rather believe that the Spirit of Education, which has gone forth, and is on its march from the West to the East, will, as certainly as the light of Aurora dispels the gloom of night, eventually drive from this ancient garden of the human mind, that worse than Cimmerian darkness which now envelopes it. Let us cherish the hope, that a period is rapidly advancing, when the sanguinary aspect of the Crescent will be forever banished, and that from the plains of Lacedemon, to the mountains of Thracia, under the beneficent influence of the Christian banner, civilization will again diffuse its blessings, and learning and humanity, arts, science, and a benevolent religion, establish their glories.

The most important lesson to be derived from the contemplation of those melancholy facts—of the entire annihilation of all that was fair and glorious in the character and history of nations, is the danger of a similar relapse to those that now are flourishing; and the responsibility that these are under as it regards futurity. What are the means most likely to perpetuate the blessings of liberty, and the blessings of knowledge? To protect the brightness and advancement of the human intellect itself, from the ruthless hand of time, and the still more ruthless sway of unbridled passions? Can there be any antidote half so effectual as the universal extension, not only of the benefits of learning and science, but of a genuine taste, for the fountains whence these benefits proceed? Where learning is only a thing of patrician acquirement,—where there are but a chosen few that are admitted to its sanctuary, is it surprising that these should be crushed by the tumultuous passions which impel the vulgar breast—passions which may arm their votaries with a blind zeal against their benefactors, and lend the colouring of a false sanctity

to their suicidal fury? But, let the enjoyment of knowledge, like the dew of Heaven, be diffused upon all,—and where will the populace be found, that will blindly and madly agree to dash the cup from their own lips, and destroy the food prepared for their own nourishment?

Is it not therefore upon the liberality of its institutions, and the universality of its perceptions of what is truly valuable and noble in the character of man, that a nation is to rely for its internal tranquility, and for its stability amidst the storms which agitate the world?

In no country which ever took its station among the empires of the earth, was education in its most extensive sense, more important than in our own. The form of our government, and the terms of our union, absolutely call for the diffusion of light and knowledge to every corner of our dominion and amongst every class of our population.

This principle will doubtless be granted, that the stability and permanency of our republican institutions, have no solid foundation, other than the desires and affections of the people. A despotic government, in which the power remains indeterminate in the same hands, may stand for ages though opposed to the individual affections and wishes of the governed. But not so where the voice of the majority is the only legitimate source of power.

On this broad principle, by which every individual is both a judge and a juror, where none is so weak that his voice may not be heard, and where every voice will be exerted to join the chorus either of right or wrong, how immensely important is it that the elements of a sound understanding, that the principles of a wise and an expanded intelligence; that the sympathies of a cultivated and an honourable mind, should be impressed, as far as practicable, upon every individual who thus exercises the rights of sovereignty among a free and high-minded people?

Not only does the safety of our form of government depend upon this universality of instruction, but the wisdom of its measures and the whole concatenation of its policy. These are influenced, not so much by the judgments and justice of its ministers, as by the dictates of that authority which springs from every point of our soil,—an authority which must be obeyed. If then Americans are wise, will they not cherish with peculiar affection, and with surpassing liberality, their seminaries of learning, and every institution which renders useful knowledge accessible to all.

We have other inducements, and those too of an exalted nature, for using our best exertions in advancing the moral and intellectual character of our people.

Our beloved country occupies, at the present moment, a station on the great theatre of the world, in some respects more important, than that which has been held by any other people. Our infant nation, is but just entering its long and arduous career of political history. It has but just enrolled itself in the list, announcing its intention to become an important unit in the vast compact of mankind. It commences its race, when other nations are holding up to it the book of their hoary experience, and when some of them are exhibiting the most obvious symptoms of decrepitude and decay. With the glow of youthful hope upon it, our nation has nevertheless the immense advantage of drawing instruction from the unbounded stores which the progress and the destinies of other nations afford. It has the light, the precious light, of all past history to guide it. Its lot is cast in one of the fairest portions of the globe, and blest with every advantage and variety of soil and climate.

It has not, in general, gained this fair territory by gross violations of the rights of man. It has not, like many other nations, "waded through slaughter to a throne," and erected its empire upon the ruins of civilized greatness. It planted its foot in the wilderness of creation; it laid the very corner stone of its own

political edifice, and is indebted to none for the materials of its vast and complete erection.

It commences its course, with a full knowledge of the dangers to which other nations have been exposed; with an ample chart of the rocks and quick-sands on which the mightiest empires have been stranded and lost. It consisted too, in its very outset, not of a horde of worthless adventurers, seeking for wealth in distant regions by unrighteous plunder, but of character, talent, and worth, selected from the most intelligent portions of various countries, and bearing with them the lights and experience of different people, and trained to wisdom in the school of hardship and suffering. Thus have we taken our stand in the great republic of nations, under the auspices of no common lot.

But it is not so much from any of these circumstances, that the load of responsibility, which rests upon us, has been chiefly incurred. It is not from these alone, that the world is looking to us with earnestness and expectation. The eyes of Europe are fastened upon us. The Governments there, regard us with apprehension and distrust. The politicians of Europe, balancing between the impulses of contending theories, view us with solicitude, anxious for the weight of our experience and example. The sectaries of Europe, look to us with equal interest, for a solution of the important problem of church and state. But above all, the philanthropists of Europe, behold us with feelings of unaffected and affectionate concern. They know that among this new and rising people, the minds of men, are, by the constitutions of their government, as free as the air they breathe. They know that we are not fettered with the prejudices of ages, that the chains of superstition were broken and thrown off in our Atlantic flight. They know that in acquiring our independence, we placed ourselves in a condition to

“expatiate free o’er all this scene of things,”

to adopt our own councils, to follow the dictates of our own un-

biased judgment, to frame our own systems, to mature the institutions of our own forming. But they know also, that we have entered upon our high and solemn engagements, at a period, when the world has a right to expect from us far more than it could have had, at any former epoch of its history. They know that there never was a period, when the principles of all sound and useful knowledge, were so generally diffused through the various ranks of society ; that the rights of man were never so well and so generally understood ; the duties and obligations of humanity, so universally felt ; justice so much respected ; learning so much honoured ; benevolent feeling so much cherished ; and the doctrines and the duties of religion, so prominently and extensively taught among the nations. Herein is the sum and the essence of that most responsible duty, which the citizens of the United States are expected to fulfil. We have launched our national bark upon the stream of ages, under serener skies, and with fairer gales, than ever blessed the dawn of any of our predecessors in history. Our destinies are, under Providence, in an uncommon degree, placed in our own hands. Our happiness, and the happiness of unborn millions, is to a great extent, dependent on the wisdom of the present age. It is no wonder then, that the attention of the civilized world is turned upon us, and that all our doings should be noticed with scrupulous curiosity and anxious hope. We are all aware, that our country is advancing with rapid strides to greatness and power, and we are cheered with the prospect of that high and lofty station, it is destined to hold among the governments of the world.

But what is to be the character of its history,—what the complexion of its fame,—are questions of more dubious decision. Can we feel indifferent to the solution which future ages will give to this question ? can there be one citizen among us, whose bosom beats not with the hope, that America, in a few centuries more, may not only rank among the powerful and influential nations of the earth, but that it may be still more distinguished by

its high example of dignified moderation, its impartial and inflexible justice, its humane and enlightened policy, its character for all that is honourable and glorious in a nation's annals? Can there be one that does not hope, that the country of his birth, guided in its majestic march by the government of his choice, may become the asylum and consoler of oppressed humanity; that by its dignified and pacific course, and the vast extent of its commercial relations, it may carry the weight of its example, and the principles of its justice, into all parts of the earth? Not like the republics that have gone before it, ambitious only of military renown, and of rioting in the spoils of ruined countries; but, satisfied with its inheritance, and disdaining the vain and absurd desire of an enlarged dominion, it may direct its energies to the noble object of a constant amelioration of its condition; to the extension of its improvements; to the diligent cultivation of the arts and sciences; to the preservation of a pure morality; and the promotion of all the blessings which flow from a mild religion, a just and equitable government, from order, charity and law. Who will not confess, that the merit of such a fame and the honour of such a history, will infinitely transcend all the splendour of the most successful military achievements, sullied as they ever must be with the tears of misery, and cruelty, and crime?

But upon us rests the responsibility; and it becomes us impartially to inquire what we are doing towards establishing a foundation for so exalted a fame, a character so superior to the common lot of nations. If ever the inhabitants of a country were placed in a situation, to exert their energies with a special and peculiar benefit to their country, that favourable situation is ours. What is now done in the way of political wisdom, of internal improvement, of learning and knowledge, of moral and civil regulation, will, in all probability, be felt in future and in far distant periods. Almost every day's doing, in this peculiar and highly favoured land, will tell in the future destiny of

the nation. All that is now done, goes to impress upon a people, still young in national experience, an influence, which time, in the inscrutable workings of his crucible, will mix up with the elements of character in the senility of its national existence.

Who is there among us, that will not therefore account it a happiness to contribute, by his most zealous exertions, to the growing vigour, and to the manly prime of a country, destined to fill so large a space in the eye of the world, and to hold forth to present and future generations, an example of so much weight?

We have thus all the inducements, that can operate upon an enlightened people, to extend through every rank of our population, the blessings of a religious, a literary, and scientific education. In a country wherein the channels of political promotion, not excepting even the highest station which the people have it in their power to bestow, are open to every young man, however obscure in condition or humble in lineage, it is of the first importance that the mind of the country, and the best feelings of the people, should be brought forward by a judicious and liberal culture.

But although the force and importance of education, have been recognized from the earliest periods of civilization; although the wisest of the ancients has left us this salutary maxim, recorded in the best of volumes, "train up a child in the way he should go, and when he is old he will not depart from it,"—and although the most distinguished of the Grecian law-givers, discovered in education, the true principles of national greatness, is it not certain, that a truth of so much moment, is not yet acted upon with that enlightened zeal which its importance demands?

The constitution of the United States, grants no authority to the general government to legislate on this subject, excepting, perhaps, in the way of military instruction. In the District of Columbia, indeed, Congress may erect what schools or universities it pleases, and endow them to any extent;—but upon the State Legislatures, reposes the authority to make suitable provi-

sion for the education of the youth of our country, and in no part of the globe, as I fully believe, are there to be found; public regulations more liberal, and more appropriate to the condition and habits of the people, than in some of the United States; and probably in none more so, than in our own. On the foundation now laid, and with the financial prospects which may justly be entertained, it will be the fault of the people and the want of a due estimation of their advantages, that can alone prevent the inhabitants of this state, from rivalling, in all the evidences of learning and intelligence, the most favoured people in the world. But whatever facilities the laws may afford, unless there is a spirit of improvement among the inhabitants,—a tone and a feeling which qualify them to appreciate the blessings of knowledge, the liberalities of the government will be offered or lavished in vain.

There is not, I conceive, any class of the community better entitled to the fostering care of those, who have it in their power to patronize education, than Mechanics. They constitute in every city, town and village, a numerous portion of our population. There is included among them, and ever must be included, persons endowed by nature, with genius and talents of the first order. To those that distinguish themselves in their respective callings, the avenues are open, not only to competence, but to wealth, reputation, and an elevated standing in the community. It cannot be a question whether this class of our fellow citizens, ought or ought not, to receive as much education, of a nature appropriate to their stations, as their time and duties will admit; for independently of the preparation it affords for a rational discharge of the duties of apprenticeship, it may qualify them more fully for the station of Magistrates, or Legislators, in which situations, their integrity, good sense, and public spirit, will often place them, at the call of their fellow-citizens.

But the effect of education upon the arts themselves, cannot be doubted. On what principle are we to account for that

superiority in architecture, in agriculture, in commerce, in almost every species of manufacture, in public roads and canals, and in all the elegancies and conveniences of life, which some countries exhibit, but upon the principle of a more general extension of light and knowledge throughout the community? Is it not precisely in those countries, where schools are the most common, where mechanics are the best taught, and the most intelligent, that the arts are the most flourishing? How are we to account for the moral phenomenon which England displays in the annals and eyes of the world? A country of about the same extent as the single state of New-York, and containing a far greater proportion of barren and useless soil,—a country far inferior too, to this state, in the natural facilities of internal communication, and in the important requisites of wood, water, and manure. To what shall we ascribe that wonderful elevation, by which England, so limited in geographical extent, should have acquired such a controul over the trade, the commerce, and the finances of the whole civilized world? How is it that her people has become the manufacturers of Europe and America,—turning the balance of trade in their own favour, with almost every nation, with which they have intercourse?

In one respect, it is true, England has a natural advantage over most other countries. Her coal mines are a source of power, indispensably important to her naval and mechanical greatness; but what would these avail without the steam engine,—and what the steam engine, without that unbounded skill and intelligence which directs it to its multifarious ends? It is undoubtedly in her schools, her societies, her numerous institutions, her free press, her vast amount of accumulated knowledge, that we are to seek for that distinction, which excites the wonder and admiration of the four quarters of the globe.

Is the metropolis of France, also, renowned for its polish, its elegance, its rank in all that science can boast of, and art display? It is there too, that we find the most noble institutions

for the promotion of learning and knowledge. It is there that mechanics, as well as merchants, manufacturers, as well as Students of medicine, may have access to courses of instruction in every branch of science, upon terms accessible to all. It is there that new institutions are springing up for the same important purpose. Within the last year, a new school has been established, comprising a course of lectures to mechanics, in that most splendid of all institutions of the same nature, the *conservatoire des arts et metiers* at Paris, which contains the richest collection of philosophical apparatus, and models of machinery, which the world can produce. In other parts of the globe, where the fabrics of the manufacturer have acquired a progressive advancement towards perfection, the same causes are found to operate,—the stimulus of increasing intelligence among the working classes. But in India and China, where mind is of less account than muscle, where the work is done by drudges, that are prompted to labour only by the pittance that preserves them from famine, the arts have remained quiescent for ages, and man as well as beast, performs the same dull round of imitation.

In no country, and at no period, was there, probably, a fairer opening for enlightened enterprise, in arts and manufactures, than at the present time in the United States. With the raw materials abundantly in our possession, (excepting some of the metals, silk, and a few other articles, which further research and more extended cultivation, will, it is presumable, supply,) with numerous advantages in almost every state, of the cheapest of all mechanic powers, that of falling water; with materials for building—wood, stone, brick-earth, and lime in all sufficiency; and, with such a demand for the various articles of manufacturing industry, as to have employed, during the last month only, in the introduction of those foreign articles, from a single port in Europe to the port of New-York.

alone, 8551 tons of shipping* ;—as to call for an importation, which amounted during the last year to \$52,500,000, of which \$31,200,000, were retained in the country.† What then is wanting, in order to introduce into this country, and to transfer to our own soil, a large proportion of that immense industry and talent, which are employed in foreign lands, in the conversion of own materials into things for our own use and consumption? Are we deficient in mechanic skill? Surely in no country of the same population, and within the same extent of its history, has there ever been exhibited one half of the inventive talent and the mechanical ingenuity, which the state of the arts among us, is able to bring forward. Our shipyards send forth their productions, to be admired in every clime and by every eye. Our steam-boats, surmounting with ease the currents of our greatest rivers, pouring forth their numerous trains of smoke through our western forests, encountering the fiercest winds of our extensive sea-board, and affording the facilities of bridges to our widest ferries, have furnished an example that has been eagerly followed by European competitors. And in the more delicate operations of the workshop, where can any thing be found to excel in inventive ingenuity, in exquisite combination of motion, the card-making machine of WHITEMORE, the screw-making machine of —†; the nail-making machine of REEVES, the wool-spinning machine of BREWSTER, the shearing machine of SWIFT, and though last not least, the turning machine of BLANCHARD?‡ Where manufactories have been undertaken with suffi-

* This is the amount of tonnage which arrived from Liverpool in the month of October, 1822, as taken from the Collector's books.

† The value of manufactured articles imported from abroad for our own consumption, amounted, last year, to almost exactly one-half of the merchandize of every species brought into the country; the former being \$31,200,923, and the latter \$62,505,724.

‡ I regret that the name of the inventor of this admirable machine, has escaped my memory.

§ This ingenious artisan has invented a lathe, by which he turns gun stocks to any pattern that is furnished him. His machine is already in operation in the United States Armory, both at Springfield, Mass. and at Harper's Ferry, Virginia. The lathe moves by water, and in that which I saw last summer at Springfield, two gun stocks were completely shaped, from the muzzle to the shoulder, from rough pieces of plank, in less than half an hour. The same machine would turn, with nearly equal facility, an ox yoke, or a shoemaker's last, to any assigned pattern.

cient capital, and a proper degree of spirit and intelligence, experience has demonstratively shown, that there is not wanting any thing in the talent for planning, arranging, and conducting the most complicated apparatus, nor of skill in the construction of machinery. In no part of the world (as I believe) can a cotton factory be found, which in all its parts, exhibits more skill, more efficient judgment in arrangement and execution, and more neatness and delicacy in the finish, than in that at Waltham near Boston. In one apartment are seventy looms, all kept in rapid and simultaneous movement, by the same water power, which spins the cotton, in other apartments, by the most improved and beautiful machinery. In this establishment, the proprietors have uniformly proceeded upon the most liberal principles in relation to their superintendents, their mechanicians, and their work people, rightly judging, that knowledge is in reality power, and that liberality, while it elicits talent, secures fidelity. Few concerns in this or any other country, yield a better profit; and so ready is the demand, and prompt the sale of Waltham fabrics, that the British manufacturers conceive it to be their interest, it is said, in the goods destined for this country, to imitate them nicely in appearance, even to the stamp!

The extensive factories at Pawtucket near Providence, also display nearly as high a degree of skill and mechanical perfection, as are to be found in similar establishments in Great Britain. The venerable friend is still living, who at that place, erected the first cotton factory, on this side the Atlantic. His enlightened judgment and patriotism induced him to patronize one of the workmen, that had been employed by Arkwright, in the first establishment, erected by that distinguished genius in England.

What then is there wanting, to enable and to induce our countrymen, to enter more boldly and effectually, into this immense career of national industry, and national competition? There are doubtless, many reasons which may be offered, some of them substantial and philosophical, having their foundation,

in the nature of our political relations, which should induce caution, deliberation, and foresight in those enterprises. It is far from my intention to enter upon the disputed question of the expediency or in expediency, of supporting by statute and tariff, our infant manufactures. It would really appear, upon the first view of the question, that with so great a demand,—such abundant materials, and with such a sufficiency of genius and talent,—there could be no occasion whatever for our 37½ per cents. and our long list of ad valorem, to stimulate us to the business of manufacturing. Fuel and labour, it is true, are dearer here than in Europe,—but the way to make labour cheap, is to make labour plentiful. Erect manufactories, and you will soon have a population around you. The multiplication of hands requires no tariff to protect it. While we are doubling our numbers in twenty-five years, in Europe fifty or one hundred years cannot, or do not, accomplish such an increase.

I advert now to this subject in order to urge our point ;—that the best way to promote any or all of the useful arts in our country, is to enlighten the minds of our people. To teach them that it is *mind* only that governs *matter*. It is not cheapness of labour merely that renders the arts flourishing, or what country in Europe or America would be able to compete with the manufacturing myriads of India and China?—no, it is that mental energy which springs from a just sense of its duties, from a comprehensive knowledge of the principles on which it operates, that prompts to vigorous and manly, and of course to successful exertion. Knowledge to the common mind, is like the rain and the dew to plants, in an arid soil. It descends to the root, it expands the leaf, and it fructifies the blossom.

It is in this kind of diffusible stimuli,—it is in the amount of this species of circulating medium, that we are still deficient. Let us increase this mental aliment among our labourers, our manufacturers, our young mechanics, and the arts will feel it through every fibre.

This proposition is beginning to be felt more extensively than it ever has been. It is a fact not uninteresting, that in two very distant cities nearly equal in population, and both distinguished for intelligent industry, I mean New-York and Edinburgh, associations should have been formed at the same time (during the last autumn) and for the same object, viz : the diffusion of scientific knowledge among mechanics. Such a coincidence, affords presumptive proof of the wisdom and utility of such a measure.

The principles on which the New-York Mechanic Institution has been founded, have been pretty generally made public, and it is presumed they will receive the substantial support of our citizens. An act of incorporation was readily granted by the Legislature, and the institution has organized itself by the election of officers and the adoption of a constitution ; and nothing is now wanting to carry it into full operation, but subscribers and funds. That this institution will not be suffered to struggle for existence, but that it may soon find itself secure in the affectionate wishes of this community, and, by the munificence of an enlightened public, provided with an edifice adapted to the extent and importance of its object, will, I trust, be the feeling of every friend to the arts in this city.

But it is not to mechanics alone, that the principles of science extend their enriching and humanizing influence. Their moral and intellectual tendencies, are equally applicable to the merchant, to the capitalist, to the children of affluence, and to those who engage in the learned professions. That knowledge of nature which is unfolded by the science of chemistry, and the various other departments of natural philosophy, has so intimate a connection with our daily wants, with the aspirations of our minds, with our habits of thinking and acting, and in short with the whole circle of our intelligence, that to be destitute of this knowledge, is to fail in one of the most useful and important concerns of education. Besides, where is the young man that

receives a mercantile, or even a professional or learned education that can promise himself, that his future prospects shall not change, and that it may not be his interest and his pleasure to abandon his original calling and become a manufacturer, an agriculturist, or the manager of some concern in which technical and scientific knowledge will be highly useful or even essential to his success? It is this universality in the application of the physical sciences to the affairs of civilized nations, that has induced the most enlightened communities to foster their extension with peculiar zeal.

It is very obvious, notwithstanding the increasing facilities which this country now affords of gaining information on scientific subjects, by the multiplication of books and journals, as well as by lectures and experiments, that this knowledge is very much wanting, even among those who are destined to hold an influential station in society. I speak from no other feeling than the desire, that a comparison of what we are, as a community, with what we might be, may more and more redound to the credit of our intellectual character.

As rational and social creatures, the study of the works of that infinitely wise Being, by which we are all supported, and without whose daily and hourly ministrations we should inevitably perish, cannot but tend to enrich our minds with the noblest kind of intelligence, as well as to warm our hearts with the delightful feelings of love, gratitude, and devotion. We thus behold more impressively the hand

"That gilds all forms
"Terrestrial, in the vast and the minute;"

and we trace more feelingly

"The unambiguous footsteps of the God,
"Which gives its lustre to an insect's wing,
"And wheels His throne upon the rolling worlds."

But without study,—without the serious application of our faculties to this immense volume of wisdom, by means of the truths of science, we shall gaze upon the magnificent scene around

us, only with obscure and confused apprehensions,—we shall be imperfectly qualified to act our parts in the most interesting of all social delights, the pleasures of intelligent and instructive conversation. To you, my young friends, in a particular manner, I would therefore urge the importance of availing yourselves of every opportunity of gaining fresh accessions to your stock of intellectual treasure. Employ your invaluable hours of leisure, from the necessary toils of business, in making those acquisitions that are not subject to the fluctuations of fortune ;—in adding to that fund, of which you never can become bankrupt. Vain indeed are those pleasures, which terminate with the moment of their actual enjoyment. Though they may sparkle high, and steal with soft delight over the enraptured senses, their only impression in the time of trial, is bitterness and sorrow. But every hour of well spent labour in the field of virtuous knowledge, adds to those fruits which will increase the respectability of your manhood, and render your declining age useful, dignified, and honourable.

“Oh what a patrimony this! a being
 “Of such inherent strength and majesty,
 “Not worlds possess can raise it; worlds destroyed,
 “Not injure; which holds on its glorious course,
 “When thine, O Nature, ends!”

FINIS.

NOTE TO PAGE 18.

"and probably in none more so than in our own."

Since the last half sheet was printed, the Annual Report of the Superintendent of Common Schools has been received, dated February 3, 1823. It appears, by this interesting document, that there are, in the State of New-York, more than 8000 School Districts,—that for the term of eight months during last year, 351,173 children have been reported as receiving a common school education, being 18,194 more than were educated in 1821,—that if to this number be added those taught in districts from which no returns have been received, and the number taught in colleges, academies, &c. the whole number will not fall short of 395,000,—that the whole number of children in the state between 5 and 15 years of age, may, from the returns made, be fairly estimated at 405,000, making the proportion between the number of children taught, to the whole number, as 44 to 45,—that the School Fund of this State amounts to 1,656,636 dollars,—that there have been drawn from the Treasury, in eight years, upwards of 1,200,000 dollars, and raised by tax for the support of Common Schools; and that it may be safely estimated, that during the same period, nearly three millions more have been contributed by individuals for this same purpose, making a grand total of Four Millions of dollars over and above the appropriations for Colleges and Academies.

These facts are very encouraging, and may probably challenge a comparison with the public and private provision for education in any part of the world.

